I hereby certify that this conspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450

Alexandria, VA 22313 on:

INFORMATION DISCLOSURE **STATEMENT** Patent Application Docket No. UF-311XC1 Serial No. 10/718,842

Margaret Efron, Patent Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit

2661

Applicant(s) :

Sartaj Kumar Sahni, Haibin Lu, Kun Suk Kim

Serial No.

10/718,842

Filed

November 21, 2003

For -

Partitioning Methods for Dynamic Router Tables

Conf. No.

1937

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§1.97 AND 1.98

Sir:

In accordance with 37 CFR §1.56, the references listed on the attached form PTO/SB/08 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. A copy of each cited reference is enclosed.

It is respectfully requested that the references cited on the attached form PTO/SB/08 be considered in the examination of the subject application and that their consideration be made of record.

: :)

The applicants respectfully assert that the substantive provisions of 37 CFR $\S\S1.97$ and 1.98 are met by the foregoing statement.

Respectfully submitted,

Margaret H. Efron

Patent Attorney

Registration No. 47,545

Phone No.:

352-375-8100

Address:

2421 N.W. 41st Street, Suite A-1

Gainesville, FL 32606-6669

MHE/ue

Enclosure: Form PTO-1449

Copies of references cited



PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

+

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for for	orm 1449A/PTO			Complete if Known			
		00	IDE	Application Number	10/718,842		
	ATION DISCL ENT BY APP			Filing Date	November 21, 2003		
STATEIVI	ENI DI APP	LICA	AIN I	First Named Inventor	Sartaj Kumar Sahni		
(use as many sheets	as ned	essary)	Art Unit	2661		
				Examiner Name			
Sheet	11	of	4	Attorney Docket Number	UF-311XC1	J	

· •

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. 1	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
/J.P.P/	U1	US- 4,251,861	02-17-1981	Mago	All		
/J.P.P/	U2	US- 4,833,468	05-23-1989	Larson et al.	All		
/J.P.P/	U3	US- 5,555,405	09-10-1996	Griesmer <i>er al</i> .	All		
/J.P.P/	U4	US- 5,701,467	12-23-1997	Freeston	All		
/J.P.P/	U5	US- 5,761,440	06-02-1998	De Marco et al.	All		
/J.P.P/	U6	US- 5,787,430	07-28-1998	Doeringer et al.	All		
/J.P.P/	U7	US- 5,909,440	06-01-1999	Ferguson <i>et al</i> .	All		
7J.P.P7	U8	US- 6,018,524	01-25-2000	Turner et al.	All		
/J.P.P/	U9	US- 6,021,131	02-01-2000	Even	All		
/J.P.P/	U10	US- 6,041,053	03-21-2000	Douceur et al.	All		

-	FOREIGN PATENT DOCUMENTS							
		Foreign Patent Document			Pages, Columns, Lines,	I		
Examiner Initials*	Cite No. ¹	Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T⁴		
	F1							
	F2							
	F3		-					
	F4							
	F5							
	F6							
	F7	· ·		-				

Examiner		l Data	
LAMITIMICI	/ Inc. Datal/	Date	00/44/0000
Cimmokuma	/Jav Patel/	10	
l Signature	rody racen	/ Considered	03/11/2000
		1 0 0 1 3 1 0 0	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.P.P/



PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

+

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for for	m 1449A/PTO			Complete if Known			
INICODMA	TION DISCL	00	IDE .	Application Number	10/718,842		
	ATION DISCL ENT BY APPI		_	Filing Date	November 21, 2003		
STATEIVIE	ENIDIAPPI	LIU	AIN I	First Named Inventor	Sartaj Kumar Sahni		
(u	se as many sheets a	as nec	essary)	Art Unit	2661		
				Examiner Name			
Sheet	2	of	4	Attorney Docket Number	UF-311XC1		

			U.S. PATENT DO	OCUMENTS	
Examiner Initials*	Cite No. 1	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/J.P.P/	U11 '	US- 6,061,712	05-09-2000	Tzeng	All
/J.P.P/	U12	US- 6,092,072	07-18-2000	Guha <i>et al</i> .	.i All.
/J.P.P/	U13	US- 6,104,701	08-15-2000	Avargues et al.	, All
/J.P.P/	U14	US- 6,157,955	12-05-2000	Narad et al.	All
/J.P.P/	U15	US- 6,212,184	04-03-2001	Venkatachary et al.	All
/J.P.P/	U16	US- 6,266,706	07-24-2001	Brodnik <i>et al</i> .	, All
/J.P.P/	U17	US- 6,289,013	09-11-2001	Lakshman et al.	ÀII
/J.P.P/	U18	US- 6,335,932	01-01-2002	Kadambi <i>et al.</i>	All
/J.P.P/	U19	US- 6,341,130	01-22-2002	Lakshman et al.	All
7J.P.P/	U20	US- 6,522,632	02-18-2003	Waters et al.	All
/J.P.P/	U21	US- 6,563,823	05-13-2003	Pyrzygienda <i>et al.</i>	All
/J.P.P/	U22	US-2002/0009076	01-24-2002	Engbersen et al.	All
			"		-,,-
					-

[Examiner	/Jav Patel/	Date	03/11/2008
Signature	Tody Taton	Considered	J

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.P.P/

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

Cubatikut	e for form 1449B/PT(,		Complete if Known		
	RMATION D		OSLIDE	Application Number	10/718,842	
				Filing Date	November 21, 2003	
SIAI	EMENT BY	APF	LICANI	First Named Inventor	Sartaj Kumar Sahni	
/us	se as many sheets	ac ner	eccan/)	Group Art Unit	2661	
(00	oe as many sneets	<i>as nec</i>	essary)	Examiner Name		
Sheet	3	of	4 .	Attorney Docket Number	UF-311XC1	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/J.P.P/	R1	Afek, Y. et al. (Dec. 14, 1999) "Routing with a Clue" ACM SIGCOMM. pp. 203-214, (enclosed copy pages numbered 0-23).	
/J.P.P/	R2	BERG, M. (1995) "Two- and Three-dimensional Point Location in Rectangular Sub-divisions" <i>Journal of Algorithms</i> . Vol. 18, No. 2, pp. 256-277.	
/J.P.F	/ _R3	CHANDRANMENON, G. and VARGHESE, G. (1996) "Trading Packet Headers for Packet Processing" <i>IEEE Transactions on Networking</i> . Vol. 4, No. 2, pp. 141-152 (enclosed copy pages numbered 1-13).	
/J.P.P/	R4	CHEUNG and MCCANNE. (1999) "Optimal Routing Table Design for IP Address Lookups under Memory Constraints," IEEE INFOCOM. pp. 1437-1444.	
/J.P.P	, R5	DEGERMARK, M. et al. "Small Forwarding Tables for Fast Routing Lookups" ACM SIGCOMM Proceedings of the ACM SIGCOMM '97 Conference on Applications, technologies, architectures, and protocols for computer communication. pp. 3-14.	
/J.P.F	/ R6	DOERINGER, W. et al. (1996) "Routing on Longest-matching Prefixes" IEEE/ACM Transactions on Networking. Vol. 4, No. 1, pp. 86-97.	
/J.P.P/	R7	ERGUN, F. et al. (2001) "A Dynamic Lookup Scheme for Bursty Access Patterns" IEEE INFOCOM. pp. 1-10.	
/J.P.P/	R8	GUPTA, P. and N. MCKEOWN. (2000) "Dynamic Algorithms with Worst-case Performance for Packet Classification." <i>IFIP Networking</i> . pp. 528-539	
/J.P.P/	R9	HARI, A. et al. (2000) "Detecting and Resolving Packet Filter Conflicts" IEEE INFOCOM. pp. 1203-1212.	
/J.P.P/	R10	LAMPSON, B. et al. (1998) "IP Lookup using Multi-way and Multicolumn Search" IEEE INFOCOM Transactions on Networking. Vol. 7, No. 3, pp.324-334.	
/J.P.P/	R11	MACIAN, C. and R. FINTHAMMER. (2001) "An Evaluation to the Key Design Criteria to Achieve High Update Rates in Packet Classifiers" <i>IEEE Network</i> . Nov/Dec, pp. 24-29 (enclosed copy pages numbered 1-10).	
/J.P.P/	R12	MCAULEY, A. and P. FRANCIS.(1993) "Fast Routing Table Lookups Using CAMs" IEEE INFOCOM. Vol. 3 Mar./Apr., pp. 1382-1391.	
/J.P.P/	R13	MCCREIGHT, E. (1985). "Priority Search Trees" SIAM Jr. on Computing. Vol. 14, No. 1, pp. 257-276.	

Examiner		Date	03/11/2008
Signature	/Jay Patel/	Considered	03/11/2000
A-1/AAA1114-			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete a confidentiality and the completed application forms the USPTO. They will your depending upon the individual case. Any comments on the gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Office, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known **Application Number** 10/718,842 **Filing Date** November 21, 2003 **First Named Inventor** Sartaj Kumar Sahni **Group Art Unit** 2661 **Examiner Name** UF-311XC1

Sheet of 4 **Attorney Docket Number** 4

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/J.P.P/	R14	NEWMAN, P. et al. (Jan. 1997) "IP Switching and Gigabit Routers" IEEE Broadband Communications Magizine. Vol. 35, pp. 64-69 (enclosed copy pages numbered 1-8).	
/J.P.P/	R15	S. NILSSON and G. KARLSSON (1998) "Fast Address Look-up for Internet Routers" <i>Proceedings of IEEE Broadband Communications</i> . (enclosed copy pages numbered 9-18).	
/J.P.P/	R16	RUIZ-SANCHEZ, M. et al. (2001) "Survey and Taxonomy of IP Address Lookup Algorithms" IEEE Network, Mar./Apr., Vol. 15, No. 2, pp. 8-23.	
/J.P.P/	R17	S. SAHNI and K. KIM. "Data Structures of IP Lookup with Bursty Access Patterns", www.cise.ufl.edu/~sahni. (enclosed copy pages numbered 1-5).	
/J.P.P/	R18	S. SAHNI and K. KIM. (2001) "Efficient Construction of Fixed-Stride Multibit Tries for IP Lookup" <i>Proceedings 8th IEEE Workshop on Future Trends of Distributed Computing Systems</i> . pp. 178-184 (enclosed copy pages numbered 1-7).	
/J.P.P/	R19	S. SAHNI and K. KIM. (2002) "Efficient Construction of Variable-Stride Multibit Tries for IP Lookup." <i>Proceedings IEEE Symposium on Applications and the Internet (SAINT)</i> . pp. 220-229 (enclosed copy pages numbered 1-8).	
/J.P.P/	R20	S. SAHNI and K. KIM. (2002) "O(log n) Dynamic Packet Routing." 7 th IEEE Symposium on computers and communications.	
/J.P.P/	R21	S. SAHNI and K. KIM, H. Lu. (May 2002) "Data structures for one-dimensional packet classification using most-specific-rule matching." International Symposium on Parallel Architectures, Algorithms, and Networks (ISPAN). pp. 3-14 (enclosed copy pages numbered 1-12).	
/J.P.P/	R22	K. SKLOWER. (1991) "A tree-based routing table for Berkeley Unix." Proceedings of 1991 Winter USENIX Conference. pp. 93-99 (enclosed copy pages numbered 1-4).	
/J.P.P/	R23	V. SRINIVASAN and G. VARGHESE. (1999) "Faster IP lookups using controlled prefix expansion." ACM Transactions on Computer Systems. Vol. 17, issue 1, pp. 1-40 (enclosed copy pages number 1-21).	
/J.P.P/	R24	SURI, S., G. VARGHESE, and P. WARKHEDE (2001) "Multiway range trees: Scalable IP lookup with fast updates." <i>Proceedings of Globecom '01</i> .	
/J.P.P/	R25	WALDVOGEL, MARCEL et al. (1997) "Scalable High Speed IP Routing Lookups." Proceedings of the ACM SIGCOMM '91 Conference on Applications, technologies, architectures, and protocols for computer communication. pages 25-36 (enclosed copy pages numbered 1-12).	
	R26		

Examiner	/ low Datal/	Date	00/11/0009
Signature	/Jay Patel/	Considered	03/11/2008

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO). to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.P.P/